

The Use of Vignettes in Evaluating Household Roster Information: Does Anybody Read the Rules?

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Introduction

Standard procedures for conducting household-based surveys require obtaining a list of household residents. These lists are used for complete enumeration of the household, for randomized selection of respondents, and for establishing the eligibility of certain household members for particular questions. The task of compiling these lists, called "rosters," has generally been viewed as simple and conceptually non-problematic for respondents. However, specific requirements for listing household members may not match the way that household respondents understand the membership in their households.

An example may be found in the residence rules for the decennial census. These rules generally follow a logic involving the time that individuals spend in a particular location. That is, in many instances, an individual's "usual residence" is considered to be where he or she "lives and sleeps most of the time." However, previous research (Gerber 1994) has indicated that respondents naturally include many other criteria in their judgments of household membership, which often contradict the judgments expected by the census residence rules. Thus, family members who spend most of their time away (such as students in college and workers who maintain a separate residence during the week to be near a job) may be listed as part of the family-based household. When such natural residence ideas contradict the census residence rule, they may be considered "counterintuitive." When the rule and the natural residence idea coincide, the rule is "intuitive."

Since we cannot expect respondents to duplicate the residence rules in roster lists if left to themselves, the decennial census has presented a series of residence rules to respondents along with the roster portion of the decennial questionnaire. However, the effectiveness of presenting rules in written form is not well-understood. In completing a roster, it seems likely that respondents will rely on a combination of the rules provided, and their own definitions about who should be considered a household member. Hence, in designing a roster, it would be useful to know the extent to which respondents use the specific information which is provided to them.

Our own previous research attempted to evaluate the effectiveness of presenting residence rules to respondents in conjunction with rosters (Gerber, Wellens and Keeley, 1996). We used vignettes representing living situations drawn from the residence rules to examine whether the

presentation of the rule on the questionnaire affected the respondents' judgment about those living situations. Our findings from this study included the following:

1. The ability of respondents to judge correctly was primarily influenced by whether or not the rule covering the vignette situation was intuitive or counterintuitive. Thus, some vignettes were judged correctly nearly all the time, regardless of the presentation of the rule, and some were judged incorrectly nearly all the time, regardless of the presentation of the instruction.

2. The presentation of the instruction did improve performance on several vignettes, especially those involving institutional settings, such as college dormitories, a prison, and a nursing home.

3. There was some indication that the presentation of the rule might actually harm respondent's ability to judge correctly when the rule was strongly "intuitive."

The vignettes in the previous research were administered as a debriefing which took place after cognitive interviews using a variety of roster formats. The inclusion of the vignettes in cognitive interviews presented certain unanswered questions. First, we were not sure if the context of the cognitive interview might have affected respondents' ability to answer the vignette debriefing. Cognitive interviews for self-administered questionnaires normally include an instruction to read the questionnaire aloud. The reading allows the research to track the respondent's course through the form, and to note any omissions or mistakes. However, the instruction to read probably has the effect of causing the respondent to be more complete in his/her processing of the form. Thus, in our previous research, it was possible that respondents might have paid more attention to information presented on the questionnaire than they would have done naturally. If that were the case, previous findings perhaps overestimated the degree to which presenting instructions makes a difference in respondent performance. In short, if respondents do not read the questionnaire, printing instructions on it will not affect behavior.

Second, in our previous research, we combined all formats and presentations of the rule together for analysis. This procedure had obvious drawbacks, since some presentations of the rules might more effectively communicate certain information than would other formats.

In order to widen the scope of our research, and to make the administration closer to what would naturally occur in a self-administered format, the current study used data from a classroom experiment. In addition, our

current research includes roster formats which represented opposite strategies for presenting information to respondents. Our main aim was to evaluate whether vignettes could be used to test the efficacy of presenting information to respondents under conditions which more clearly match natural self-administration.

Methods

1. Rosters. The two rosters used in this classroom experiment represented opposite strategies of collecting household information. One included no instructions or rules, and asked only for the number of persons in the household. The other roster, which we termed the "extended roster," presented residence instruction as a series of sequential probes on the left-hand side of the roster. In our cognitive testing, we had discovered that instructions tended to be read, or at least skimmed, in this sequential format.

The wording of the household count form was:

Step 1: How many people were living here¹ on (census day date)?

Step 2: Answer the questions below for each person, starting with one of the persons living here who owns or rents this house or apartment. Please print answers. For answers too long for the space provided, please abbreviate.

Although this form presents no specific residence rules, some information is available to guide respondent judgments. "Living here" is mentioned twice, "owns or rents" and the census day date are mentioned once. This is the only information available to respondents about who should be listed on the form. We refer to this form as being "Without Instructions" in our analysis.

The other form provided various instructions developed from past experience about persons who are either erroneously (by census rules) excluded or included on census forms. It begins:

Step 1: What were the names of everyone living at this address on (census day date) including everyone living here permanently and staying here temporarily on that date?

List their names in the categories below.

The instructions continue by reminding respondents to:

- Include family members who are temporarily away or "...who stay here

more than they stay any other place..."

- Include non-relatives, such as roommates, live-in employees, and those "...who stay here more than they stay any other place..."
- Include visitors who have "...no other place to stay."
- Exclude those "...away at college or the Armed Forces and living somewhere else."

We refer to this form as being "With Instructions."

2. Vignettes. The current research includes 11 of 13 of the vignettes used previously. (It was necessary to eliminate two vignettes for reasons of space on the debriefing form.) We have described the way that vignettes have been used in social research elsewhere (Gerber, Wellens and Keeley, 1996.)

Vignettes are brief narratives, generally no more than one or two sentences long, which contain elements of social situations and actions in which researchers are interested. The vignettes allowed us to ask respondents if they thought an individual in a particular situation should be listed on a particular census roster, and to explore their reasons for this judgment.

The eleven vignettes used in this research represented a variety of situations which were connected with specific rostering rules thought to be problematic because they lead to over- or under-enumeration by respondents. For example, our vignettes included descriptions of a college student and military personnel stationed away from home. These represent situations in which individuals are often included in roster lists contrary to census rules. The vignettes also included boarders, doubled up families, and live-in-employees who tend to be excluded from roster lists contrary to census rules.

Some of the situations selected for the vignettes represent instances in which census rules diverge from respondents' natural concepts of residence (Gerber, op. cit) and also included some situations which seemed to be more consonant with respondents' natural residence concepts. Typical of the latter situations was the vignette about a character who was "only visiting" a household. The vignettes were also written to include other information which forms part of the general context of the roster, and may not be specifically presented as a rule. For example, four of the vignettes include date-specific² information, since all census questionnaires include information about Census Day.

3. Respondents. For this study, students in classrooms from various U.S. colleges were asked to fill

¹ All emphasis has been added.

² Either by mentioning Census Day specifically or a date in the census month.

a census questionnaire for their own household. The questionnaire had one of the two rosters discussed above. After the census forms were completed, they were asked to fill a very short, self-administered questionnaire containing questions about the race and ethnicity questions on the census form. After completing this questionnaire and a short set of debriefing questions on demographic items, the vignettes were handed out. Students were asked to read each vignette and then judge where they thought the character in the vignette should be enumerated and why. In total, 376 students participated.

4. Content analysis. A content analysis was conducted on the reasons respondents gave for each judgment. This content analysis coded the first reason offered by respondents. Average percent agreement across coders was about 76%.

In general, the reasons given most often by respondents for assigning a vignette character to a roster could be classified as (a) family relationships, (b) ideas of permanence, (c) financial responsibilities to the household, and (d) ideas of what a residence is (such as legal or mailing address) or is not ("a work place is not a residence"). It is interesting to note that these categories appear to come out of respondents' natural residence ideas. Other often-mentioned reasons may have been responses to the content of the questionnaire.

Some respondents used the length of time a character was at a location as a reason for assignment. This corresponds to the idea presented in some instructions that an individual should be counted where they stay "most of the time." Also, some mentioned the location of the character on Census Day as their reason for assignment, and "Census day" clearly has no counterpart in natural residence ideas.

Other responses seemed to be specific reactions to the vignette narrative. That is, the respondent used social elements of the vignette story to create an inference which made sense in terms of the relationships portrayed. For example, some vignettes portrayed mother and child relationships. Reasons given for judgments in these vignette sometimes included the idea of dependency, even though the child in the vignette was always an adult.

Findings

Table 1 presents the percentage of correct answers to vignette questions according to whether or not the questionnaire contained rostering instructions. Correct answers correctly assign or omit vignette characters on a household roster according to decennial census instructions. Vignettes are presented in order of least-often to most-often correct overall. The last column on Table 1 shows the percentage point difference between the correct answer when census instructions, or rules, were on the questionnaire and when they were not.

A positive score in this column shows more correct answers when the rules are present. Differences between the "with instructions" and "without instructions" treatments were statistically significant at the 90% level for those vignettes where the difference was 10 percentage points or more.

Intuitive and counter-intuitive vignettes. As indicated in Table 1, some vignettes were answered correctly nearly all of the time, while some vignettes were answered incorrectly nearly all of the time. As previously described, this order corresponds to situations discovered to be intuitive and counterintuitive to respondents (Gerber, Wellens and Keeley, 1996). Judgments of whether a rule was "intuitive" or "counterintuitive" are based on separate cognitive research (Gerber, 1994). When the census rule is intuitive, respondents tended to answer the vignette correctly regardless of the presentation of the instruction. When the rule is counterintuitive, they tended answer incorrectly regardless of the presentation of the instruction.

In the current study, the vignette where performance was the worst (live-in employee) was answered correctly only 13% of the time. By contrast, the most correctly-answered vignette (vacation) was answered correctly 88% of the time. This range is similar to the previous research, where vignettes ranged from 25% to 100% correct. In the previous study, only 3 of 13 vignettes were answered correctly by less than 50% of all respondents. In the current study, half (6 of 11) of the vignettes were answered correctly by less than 50% of all respondents. Thus, the respondents in the self-administered format had somewhat less success in answering the vignettes than the respondents in the cognitive interview format. This may indicate that the cognitive interview caused respondents to pay somewhat more attention to the questionnaire content than they ordinarily would in a self-administered format.

The ordering of vignettes from least correct to most correct remained remarkably stable between the two studies. Although there were some minor changes in ordering, the positions of the vignettes appears to be very similar in the two studies. In both studies, the commuter worker and live-in employee vignettes were answered incorrectly more than any other vignette. Taken as a unit, the 6 vignettes answered incorrectly most frequently by respondents are identical in the two tables. Three of the four vignettes gotten right most frequently by respondents remain the same in Table 1.

In general, this stability indicates that the respondents' natural residence concepts are a major influence on their performance both in the cognitive interview and in the classroom experiment situation.

The content analysis of the respondents' reasons for

their judgments indicates that the reasons respondents gave for their answers to the vignettes are largely drawn from their natural reasoning about residence.

The content analysis reveals that about 71% of those incorrectly assigning the live-in employee mentioned her permanent residence or family relationship as reasons for their decisions. About 78% of respondents who incorrectly assigned the commuter worker mentioned the same types of reasons. In addition, respondents' natural residence concepts frequently discount work-related residences as legitimate residences. They express this by saying that a person is there "just for work," or "a work place is not a residence."

The four vignettes that respondents tended to assign correctly (81% to 88%) are in the last four rows of Table 1. The content analysis showed that respondents' reasoning was similar to the described logic of the census rules since the rules were consistent with their natural intuitions about residence. Generally, respondents tend to look for the most permanent place to assign people, so it is not surprising that temporary absences, such as a vacation, are easily disregarded. Social ties of kinship, such as the mother in one vignette, are often important factors in respondents' understandings of permanent social attachments. Another factor that respondents take into consideration is the social contribution people make in order to "earn" their rights to stay in a residence. The simplest of these is paying money to stay there, and one of these vignettes mentions "rent" (renter) and one implies it (roommate).

Presentation of the instruction. In the previous study, the presentation of the instruction did improve performance on several vignettes, especially those involving institutional settings, such as college dormitories, a prison, and a nursing home. In some instances, these improvements appeared substantial: for example, the nursing home vignette was gotten correct by 37% of respondents without the instruction, and by 49% with the instruction. The prison vignette (unfortunately not replicated in the second study) improved from 70% correct without the instruction to 86% correct with the instruction. Six other vignettes showed more modest gains. However, as a result of the small sample size in the previous study, none of the differences was significant. In the current research, improvements in respondents' performance were smaller, but four vignettes showed statistically significant improvements between the "no rules" and "rules presented" versions. These results indicate that in a self-administered mode, respondents use information provided to them on the questionnaire in order to construct their answers.

The largest improvements in Table 1 occur toward the middle of the range, in vignettes which were answered correctly between 37% and 74% of the time without the

instruction. It is our hypothesis that respondents are more certain of their answers at the two ends of the distribution, and are therefore less influenced by information provided on the questionnaire. It is interesting to note that the three vignettes which were least influenced by the information provided on the questionnaire all involved strong familial links for the individuals portrayed. In fact, all of the characters are spouses who are residentially separated from other, established residences. By contrast, other family members may not create this degree of certainty in response, however close they are. Two vignettes which show improvement when the instruction is shown involve an elderly mother in a nursing home, and a student living away at college. Perhaps relatives in such situations appear more ambiguous to respondents than do spouses.

The possibility exists that relatives in these two categories will not return home again, making the non-family residence more salient.

The content analysis offers further evidence of the ambiguous nature of these mid-range vignettes. They seem to indicate that respondents follow two different paths of logic in arriving at their answers.

For example, one vignette in this group in which correct assignments benefited a great deal (13 percentage points) from the presence of the rules is about the college student. For this vignette, the reasons for assigning her incorrectly to her mother's home were very diverse with ideas of home, permanency, and dependency on mother being foremost. Correct assignments followed a different logic: more respondents with the rules said that "she lived at college and that's where she should be counted."

A similar situation was found for the doubled-up family. Those making a correct assignment and having the rules, stressed their actual presence in the household: "that is where they live." Those making incorrect assignments looked for a "permanent home" somewhere else and said "they should fill out their own form." Slightly more respondents without the rules were inclined to offer these reasons.

Finally, the vignette in this category with the most correct assignments is the one that offered the respondent a choice of listing the vignette character with his mother or with his sister (where he is described as being on Census Day). Respondents in previous research tended to regard attachments to mothers as stronger and more permanent than sibling ties (Gerber, 1994), which would have led them to an incorrect assignment to our vignette. However, of the 66% answering this vignette correctly, about 73% mentioned the rules, specifically Census Day, as the reason for their decision. Citing the census rule is direct evidence of respondents' attempt to incorporate information provided on the census questionnaire into

their residence judgments.

The vignette in this study where the rules made most difference (15 percentage points) also shows this ambiguous character. The vignette discusses a member of the armed services who is "staying" with her mother while stationed at a near-by base. The content analysis indicated that when the rules were present, respondents mentioned "her permanent residence." When the rules were not present, they were more likely to regard the situation as temporary.

The results of this content analysis seem to indicate that in thinking about residence, respondents have several lines of reasoning that they may follow. We see respondents searching for a place that is considered socially permanent in terms of "home" and family connection, but they also take into account where the person is currently located and the amount of time that the person is expected to stay there, and other social information like where a military person is stationed. Perhaps situations that elicit these multiple paths of logic are the ones which can be considered "ambiguous."

These "ambiguous" situations are also the ones where the greatest advantage appears for presenting the rule. The percentage of correct answers increases from 8 percentage points (for the smallest increase) to 15 points (for the largest increase.) These findings further confirm our previous suggestion that the rules which are most advantageous to present to respondents may be those which involve situations that they naturally find ambiguous.

Presentation of the rules and strongly intuitive vignettes. In the previous study, there was some indication that the presentation of the rule might actually harm respondents' ability to judge correctly when the rule was strongly "intuitive." The previous study indicates that the five most correctly answered vignettes actually were answered correctly by fewer respondents when the rule was presented than when it was not. We hypothesized that the presentation of information about residence situations which were highly consonant with respondents own natural inclinations might prove more confusing than helpful. Instructing respondents to do what they would have done anyway, without further information, is redundant. We believed that respondents might reinterpret redundant information presented to them in the same way that respondents reinterpret the meanings of redundant questions. Such redundancy results in the reinterpretation of questions in conversations (Grice, 1975) and has also been demonstrated to affect survey responses (Schwarz, 1995).

In the current study, there is little confirmation of the possibly harmful consequences of presenting a highly intuitive rule on the questionnaire. However, the vignette

answered most correctly by respondents shows poorer performance when the rule was presented than when it was not, by a fairly substantial 12 percentage points.

However, no other vignette shows a decrease of this nature. In addition, another vignette (about renting a room) which showed a substantial 18 percentage point decrease in the first study shows a very small gain in the current study. Thus, there is not enough evidence for us to conclude from this study that presenting highly intuitive rules may harm respondents' performance.

Conclusions

The current study confirms our previous finding that respondents are primarily influenced in their residence judgments by their own natural beliefs and understandings about residence. However, respondents do attempt to use information provided to them on the questionnaire. It appears that it is more advantageous to present rules if the situation is somewhat ambiguous to respondents. However, the hypothesis that presenting highly intuitive rules may confuse respondents is not confirmed in this study.

This analysis shows the potential of vignettes to evaluate the usefulness of information provided to respondents in self-administered questionnaires. Evidence exists for respondents' use of both their own intuitions and information provided on the questionnaire.

These results also suggest a way of evaluating which instructions, or rules, are necessary to present to respondents and which are not. In particular, it may be unnecessary to present instructions if respondents are able to supply correct responses whether or not the instruction is presented. In the census context, these data suggest that respondents do not need to be reminded to include renters or roommates, or not to include temporary visitors as household members. These results also suggest which instructions respondents will not follow whether or not they are presented. The commuter worker and live-in employee instructions are examples.

Using vignettes, researchers can systematically expose respondents to a range of situations which they may not spontaneously mention on their own. Since the hypothetical situations are chosen by the researcher, the range of situations can be tailored to shed light on specific research goals. Used as a set of debriefing questions, vignettes are a valuable method of revealing aspects of respondents' judgments which would not otherwise emerge.

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TABLE 1
Vignette by Correct Assignment by Presence of Instruction

Vignette Type	Percent Correct (Total Number of Cases)			Diff.
	With Instructions	Without Instructions	Total	
Live-in Employee	16 (174)	11 (184)	13 (358)	+5
Commuter Worker	18 (176)	14 (189)	16 (365)	+4
Armed Forces (living elsewhere)	40 (176)	39 (185)	39 (361)	+1
Nursing Home	46 (171)	38 (177)	42 (348)	+8
Away at College	50 (174)	37 (189)	43 (363)	+13*
Doubled-Up Family	52 (177)	39 (184)	45 (361)	+13*
Homeless	71 (167)	61 (171)	66 (338)	+10*
Armed Forces (living at home)	89 (172)	74 (185)	81 (357)	+15*
Renter	83 (175)	81 (188)	82 (363)	+2
Roommate	80 (177)	84 (188)	82 (365)	+4
Vacation	82 (177)	94 (186)	88 (363)	-12*

*Significant at the 90% level.